

# EXHIBIT 1

1 LARS HENDRON  
2 UNITED STATES DISTRICT COURT  
3 EASTERN DISTRICT OF WASHINGTON

4 CITY OF SPOKANE, a )  
municipal corporation, )  
5 located in the County )  
of Spokane, State of )  
6 Washington, )

7 Plaintiff, )

8 VS. )

9 MONSANTO COMPANY, )  
SOLUTIA, INC., and )  
10 PHARMACIA CORPORATION, )  
and DOES 1 through )  
11 100, )

12 Defendants. )  
13  
14  
15

16 30(B)(6) VIDEOTAPED DEPOSITION  
17 OF

18 LARS HENDRON  
19 510 West Riverside Avenue  
20 Spokane, Washington  
21 June 7, 2019  
22  
23

24 Reported by:  
Monna J. Nickeson, CRR, CLR, RPR, CCR #3322  
25 Job No. 162299

1 LARS HENDRON

2 Washington.

3 BY MR. GOUTMAN:

4 Q. And there have been many permits,  
5 and we'll get to them, issued over the years;  
6 is that correct?

7 A. Yes.

8 Q. Which require you to, for example,  
9 meet certain discharge limitations of certain  
10 constituents, correct?

11 A. Yes.

12 Q. But it's those permits that drive  
13 your actions, correct?

14 A. By and large, yes.

15 Q. You would agree with me that with  
16 respect to permits, but also other  
17 administrative orders, statutes and so forth,  
18 that it's important for the city to obey the  
19 law?

20 A. It is important for the city to obey  
21 the law.

22 Q. You would agree with me that it's  
23 important for the city to meet deadlines set  
24 forth in administrative orders, permits and the  
25 like?

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2 a negative impact in every case.

3 Q. Well, what would determine whether  
4 it has a negative impact?

5 A. Some of the overflows are often  
6 very, very small.

7 Q. So it would be quantity?

8 A. It would be quantity and  
9 concentration.

10 Q. Well, and certainly frequency,  
11 correct?

12 A. And frequency, yes.

13 Q. Because the law requires you to meet  
14 a "one discharge event per outfall per year,"  
15 correct?

16 A. Correct, on a 20-year rolling  
17 average.

18 Q. Correct.

19 And you have not been in compliance  
20 with that law for decades, correct?

21 A. That rule came up in, I believe, the  
22 late '80s, and at that time we had a time frame  
23 within which to complete the program to meet  
24 that requirement.

25 Q. Am I correct that, as we sit here

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2 today, the city has CSO outfalls that discharge  
3 overflow material into the Spokane River more  
4 than one time per year?

5 A. There are a few that still do, as  
6 we're at the very end of our program.

7 Q. Okay. Well, we'll take you through  
8 that data.

9 You would agree with me that the  
10 Spokane River has had water quality issues  
11 since the 1800s; is that correct?

12 A. I don't recall how far back. It's  
13 somewhere around 1900. Possibly earlier.

14 MR. GOUTMAN: Let's mark this as  
15 Exhibit 2.

16 (WHEREUPON, Hendron Deposition  
17 Exhibit 2: 1963 Plant Information was  
18 marked for identification.)

19 Q. Placed before you is a document  
20 entitled Welcome to City of Spokane Sewage  
21 Treatment Plant, by Messrs. Reisdorph,  
22 R-e-i-s-d-o-r-p-h, and Wilson; is that correct?

23 A. That appears to be correct.

24 Q. This is a City of Spokane document,  
25 correct?

1 LARS HENDRON

2 A. Yes, it is.

3 Q. And according to this document, if  
4 you turn to the Page 1, number 1, third  
5 paragraph, it says -- I'm sorry.

6 This document was prepared by  
7 employees of the City of Spokane; is that  
8 correct?

9 A. I cannot attest to who prepared  
10 this.

11 Q. But it's -- Reisdorph is identified  
12 as superintendent and Wilson as chemist?

13 A. Yes.

14 Q. Okay. So it's -- but it's a City of  
15 Spokane document; you've already told me that?

16 A. It is.

17 Q. Okay. Third paragraph, it reads:  
18 Already in it fledging years, the City of  
19 Spokane is aware of possible contaminated water  
20 problems -- tell me if I'm reading too fast --  
21 as evidenced by an ordinance passed in August  
22 of 1885, which forbade the dumping of, quote,  
23 excrement, manure and garbage, close quote,  
24 into the Spokane River. It was true,  
25 nonetheless, that the City of Spokane continued

1 LARS HENDRON

2 to lay sewers that emptied into the Spokane  
3 River.

4 Isn't that what the City of Spokane  
5 said in this document?

6 A. Yes.

7 Q. So already in 1885, you would agree  
8 the city had recognized a problem of water  
9 quality and passed an ordinance forbidding the  
10 dumping of, as it says, excrement, manure and  
11 garbage; is that correct?

12 A. According to this document, that is  
13 correct.

14 Q. Why would the discharge of untreated  
15 sewage present an issue for water quality?

16 A. At that time in Spokane's history,  
17 the City of Spokane withdrew water from the  
18 river as a drinking water source, and that was  
19 the primary concern, to the best of my  
20 knowledge.

21 Q. That's in the 1800s?

22 A. Yes.

23 Q. There are other reasons, are there  
24 not, other than the use of the river for  
25 drinking water, that would cause the city

1 LARS HENDRON

2 concern about the dumping of sewage into the  
3 river, correct?

4 A. I cannot attest to the situation at  
5 that time. Certainly, subsequently, we were  
6 more concerned about other issues.

7 Q. Well, discharges of raw sewage can  
8 have an impact on -- well, first of all, the  
9 discharges of fecal coliform, correct?

10 A. Yes.

11 Q. And what is that?

12 A. That is a bacteria that's present in  
13 human waste that can cause disease in people.

14 Q. And is that good to have floating  
15 around the river?

16 A. It is not, at least not in  
17 concentrations high enough to cause problems.

18 Q. Certainly, if you're swimming in the  
19 river, you don't want to run into that, do you?

20 A. Not very much of it.

21 Q. You don't want to run into any of  
22 it, do you?

23 A. Ideally, not.

24 Q. It can cause oxygen deficiency, can  
25 it not?



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2 A. The discharge of untreated sewage to  
3 the river can cause oxygen deficiency.

4 Q. It can result in the killing of  
5 fish, correct?

6 A. Potentially, although I'm not  
7 aware -- I don't recall hearing of fish killed  
8 as a result of our sewage discharges.

9 Q. It can cause areas of the river  
10 becoming dead?

11 MR. LAND: Objection.

12 BY MR. GOUTMAN:

13 Q. Sufficiently oxygen deprived so as  
14 not to be able to sustain aquatic life?

15 A. Directly as a result of combined  
16 sewage discharges, I'm not sure. The overall  
17 effect within Long Lake downstream, because of  
18 its depth, causes oxygen at the lower levels to  
19 be depleted because it's so deep.

20 Q. Between the years of 1885 and when  
21 the city passed that ordinance in 1909, can you  
22 identify anything that the city did to bring  
23 the sewer system into compliance with the 1885  
24 ordinance?

25 A. I am not aware of any actions on

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2 A. Yes, I'm on Page 2-9.

3 Q. Okay. And it says, under 2.3.1:

4 The Washington State Department of Health in  
5 1909 and 1929 ordered the city to cease and  
6 prevent any further dumping of sewage into the  
7 river. In both cases the city took no action  
8 and the state did not pursue the matter.

9 That's what the report that you  
10 coordinated said, correct?

11 A. Yes. And may I clarify? I thought  
12 your question related to prior to 1909.

13 Q. I moved.

14 A. I'm sorry.

15 Q. I understood -- I asked you  
16 between -- 1885 and 2009 -- excuse me -- 1909,  
17 and you said you weren't aware of anything that  
18 the city did.

19 Now I'm asking you between 1909,  
20 when the Washington State Department of Health  
21 ordered the city to cease and prevent further  
22 dumping of sewage in 1929, when they again  
23 ordered the city to stop dumping sewage,  
24 whether the city did anything in response to  
25 those two orders.

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2 A. To the best of my knowledge, we did  
3 not respond to that, at least the first one.

4 (The Court Reporter requested  
5 clarification.)

6 A. Both, according to this document.

7 Q. Again, this is a document, if we can  
8 just turn to -- turn to this page, you're  
9 identified as a project manager for this  
10 project, correct?

11 A. Yes.

12 Q. And this is a City of Spokane  
13 document; is that correct?

14 A. It is.

15 Q. And according to the City of  
16 Spokane, in this document, you were ordered to  
17 stop dumping sewage in 1909 and in 1929, and  
18 you didn't do anything about it, correct?

19 A. Not immediately. Not at all in  
20 1909, although it appears that by 1933, the  
21 city was taking action.

22 Q. Well, we'll get to that.

23 (WHEREUPON, Hendron Deposition  
24 Exhibit 4: Report on Sewage Disposal dated  
25 July, 1933 was marked for identification.)

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2 A. Yes, it is.

3 Q. So this is a report of the condition  
4 of the Spokane River after those events.

5 There is visual pollution along the  
6 river banks which calls attention to the sewage  
7 pollution situation. The bacterial analyses  
8 and the probable extent of bacterial pollution  
9 are evidence that the river below Spokane is at  
10 times polluted so as to make it -- make the  
11 water hazardous for bathing and recreation.

12 Did I read that correctly?

13 A. Yes, you did.

14 Q. There -- I'm going to read further.

15 It appears likely that sewage solids  
16 accumulate at times along the bottom of the  
17 pools above the Nine Mile and Long Lake dams  
18 forming so-called sludge deposits or sludge  
19 banks, which tend to concentrate the pollution  
20 load as regards to pollution of dissolved  
21 oxygen.

22 Isn't that correct?

23 A. Yes.

24 Q. Is that a good thing or a bad thing,  
25 depletion of dissolved oxygen?

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2 A. That is a bad thing.

3 Q. Why is that?

4 A. It can affect the health of aquatic  
5 life in the river.

6 Q. And depositing raw sewage into the  
7 Spokane River can cause depletion of dissolved  
8 oxygen, correct?

9 A. Yes.

10 Q. And, thereby, affect aquatic life,  
11 correct?

12 A. Yes.

13 Q. Continuing on to the next paragraph:  
14 These are conditions which the city properly  
15 has no right to continue.

16 Is that what it says, first sentence  
17 of the next paragraph?

18 A. Yes, it does.

19 Q. And then it recommends, the bottom  
20 of the next page: The most desirable of these  
21 from a viewpoint of cleaning the river  
22 comprises of a system of intercepting sewers to  
23 deliver the sewage to a single sewage treatment  
24 plant located below the buildup portions of  
25 Fort Wright.

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2 Is that what it recommends?

3 A. Yes, it does.

4 Q. So at this time, there was no sewage  
5 treatment plant for the City of Spokane,  
6 correct?

7 A. That is correct.

8 Q. And this recommendation was made in  
9 1933, correct?

10 A. Yes.

11 Q. A sewage treatment plant was not  
12 built for the City of Spokane until 1958; is  
13 that correct?

14 A. That is correct.

15 Q. Some 25 years later?

16 A. Approximately, yes.

17 Q. Would it be fair to say that the  
18 conditions of the river -- would it be fair to  
19 say that without the construction of the sewage  
20 treatment plant in those intervening 25 years,  
21 the condition of the river did not improve?

22 A. I would say the river condition did  
23 not improve during those 25 years.

24 Q. Would you say it mostly like -- with  
25 the increasing population and load of sewage

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2 going through the river, that it most likely  
3 deteriorated?

4 A. Yes, it most likely deteriorated.

5 MR. GOUTMAN: Hold on a second. I  
6 think I might have misread something. Can  
7 I have that back?

8 BY MR. GOUTMAN:

9 Q. I omitted the first sentence of the  
10 first paragraph that I want to read to you. So  
11 I'd like to go back to that, with your  
12 permission, sir.

13 It says, and this is what I omitted:  
14 However, that the river is polluted by sewage  
15 of Spokane must be obvious.

16 And then it goes on to talk about  
17 the visual pollution along the river banks,  
18 correct?

19 A. That is what it says, yes.

20 Q. Am I correct that the city of Coeur  
21 d'Alene put in a waste operation plant in 1939?

22 A. I'm not familiar with when their  
23 plant went in, so if I may ask which page?

24 MR. GOUTMAN: Sure. Let's mark this  
25 as 5.

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2 A. I don't know what that was called  
3 before.

4 Q. Okay. So if you turn to -- and this  
5 is -- it would be Page 81. It's a chart -- it  
6 looks like this, a table.

7 A. I'm there.

8 Q. Okay. Let me -- hold that page, but  
9 I want you to go back to Page 68. I'm sorry  
10 for jumping around.

11 The second paragraph, it says: The  
12 foregoing three sources are the only  
13 significant contributors to the pollution of  
14 the Spokane River. Prior to 1939, the city of  
15 Coeur d'Alene in Idaho discharged raw sewage  
16 into the Spokane River, but during 1939, their  
17 sewage treatment plant went into operation, and  
18 this source of pollution has now been  
19 eliminated.

20 Is that what it says?

21 A. That is what it says.

22 Q. So can we agree that in 1939, Coeur  
23 d'Alene constructed a sewage, and put in  
24 operation, a sewage treatment plant?

25 A. According to this document, they did



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2 that.

3 Q. Do you have any information that  
4 would contradict that?

5 A. No.

6 Q. And am I correct that as of 1952,  
7 the date of this document -- why don't you go  
8 back to that chart that I directed you to. If  
9 you look at the symbol definitions on the  
10 bottom there --

11 A. Yes.

12 Q. -- it says: N is none; M, minor; P,  
13 primary; S, secondary; is that correct?

14 A. Yes. But no 2.

15 Q. Excuse me?

16 A. For footnote 2.

17 Q. Okay. Fine.

18 So just for the record, could you  
19 describe what primary treatment is and what  
20 secondary treatment is?

21 A. Primary treatment is a physical  
22 settling process where the sewage is discharged  
23 into a large vessel that sits quietly, allows  
24 the heavier material to go to the bottom. The  
25 greases and lighter material can then float to

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2 the top. Those materials are then removed, and  
3 the water that leaves that primary treatment is  
4 cleaner.

5 Generally speaking, it achieves  
6 about 50 percent treatment of the sewage that  
7 comes in. Secondary treatment --

8 Q. Let me stop you.

9 A. Pardon me.

10 Q. When you say it achieves 50 percent  
11 treatment, that is to say, with primary  
12 treatment, 50 percent of the sewage is left  
13 untreated and discharged to the river?

14 A. Roughly 50 percent of the pollutants  
15 of the sewage coming into the primary process  
16 are removed in the primary process. So the  
17 water leaving the primary process contains  
18 about half the strength of pollutants that it  
19 did coming in.

20 Q. Okay. And is that why secondary  
21 treatment is important -- one of the reasons  
22 why?

23 A. Yes, it is.

24 Q. Can you describe what secondary  
25 treatment is?

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2 A. Secondary treatment is typically a  
3 biological process in which the water is put in  
4 basins that have oxygenation occurring within  
5 them. The nutrients in the sewage and the  
6 oxygen provide an environment in which a  
7 variety of microbes and bacteria can break down  
8 many of the constituents in the wastewater  
9 that's remaining from the primary stage.

10 The second half of secondary  
11 treatment is then, again, a settling process  
12 where that water goes and is allowed to settle  
13 out, scum flows to the top, the biomass drops  
14 to the bottom, and it's pulled off.

15 So the water that leaves a secondary  
16 system, at least for the city of Spokane's  
17 plan, is about -- has achieved about 90 percent  
18 reduction of pollutants compared to entering  
19 the plant.

20 Q. And certainly, by the 1950s,  
21 secondary treatment was fairly common, correct,  
22 throughout municipal facilities, city  
23 municipal-operated facilities?

24 A. I don't think so.

25 Q. We'll get to that, and I'll show you

1 LARS HENDRON

2 some data on that. Okay?

3 Would you agree with me that as of  
4 1952, Coeur d'Alene had already installed  
5 secondary treatment?

6 A. I cannot tell from this document  
7 whether theirs was a primary or a secondary  
8 plant.

9 Q. Well, that's why I showed this  
10 chart.

11 We know that S means secondary,  
12 right?

13 A. Yes.

14 Q. Okay. So why don't we turn the page  
15 and look at Coeur d'Alene.

16 Five is treatment provided, right;  
17 that's the category, treatment provided?

18 A. It's on Table 1.

19 Q. Well, if you look at Table 1, first  
20 page before you turn the page.

21 A. Oh, before I turn. Yes.

22 Q. Category 5 is treatment provided?

23 A. Yes.

24 Q. If you turn the page to 2, the  
25 second page, it says Coeur d'Alene on the left,

1 LARS HENDRON

2 right?

3 A. Yes.

4 Q. And under treatment provided, it  
5 says S, correct?

6 A. Yes.

7 Q. And you'd agree that that means  
8 secondary, correct?

9 A. It means secondary in this document,  
10 yes.

11 Q. So would it be a reasonable to  
12 conclusion, based upon this study by the  
13 federal government and the state governments of  
14 Idaho and Washington, that Coeur d'Alene  
15 provided secondary treatment, at least as of  
16 1952?

17 A. They did. I would mention that I do  
18 not have knowledge of what secondary treatment  
19 may have meant in 1950s or that early -- or the  
20 late '30s. It may be different than what we  
21 would commonly call secondary treatment now.

22 Q. Okay. We're done with that for now.  
23 I think we'll come back to it. So don't throw  
24 it away.

25 Why don't we have the -- so I'm

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2 the river -- Spokane River at 25 different  
3 points. The state of Washington was greatly  
4 concerned about the pollution of the Spokane  
5 River, and even of the Columbia, and urged the  
6 city that the city provide some means of  
7 treatment.

8 And just to interject, we have seen  
9 that the Department of Health contacted the  
10 city in 1933 and stated -- told the city that  
11 it was violating state law; that was the prior  
12 exhibit, correct?

13 A. Yes.

14 Q. An initiative -- I'm reading again  
15 from the document: -- initiative to provide  
16 sewage treatment facilities was placed before  
17 the voters in 1933, but the measure was soundly  
18 defeated. The same fate was met by subsequent  
19 proposals in 1936 and 1939.

20 Did I read that correctly?

21 A. You did read that correctly.

22 Q. So would it be reasonable to  
23 conclude, based on this city document, that  
24 Spokane defeated three initiatives, in 1933,  
25 1936 and 1939, to construct a plant to address

1 LARS HENDRON

2 the violations of law that the city had been  
3 notified about as recently as 1933?

4 A. That is what this document says, but  
5 that appears possibly to conflict with the  
6 document I looked at just a moment ago.

7 Q. Okay. Why don't we take that  
8 document out.

9 What document are you looking at?

10 A. Exhibit 6.

11 Q. Well, sir, just so we're clear, the  
12 city did not build a sewage treatment plant in  
13 the 1930s?

14 A. That is correct.

15 Q. Despite being told that they were in  
16 violation of law by the Department of Public  
17 Health?

18 A. Yes.

19 Q. Okay. And as a matter of fact, if  
20 you have this document still in front of you,  
21 does it also state, and this is Exhibit 6: On  
22 December 4, 1935, the state health department,  
23 through its director E.R. Coffey, notified the  
24 City of Spokane to start within 90 days the  
25 abatement of the nuisance resulting from the

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2 discharge of raw sewage into the Spokane River  
3 and have the abatement completed within 365  
4 days from the date of the notice.

5 Did I read that correctly?

6 A. You did.

7 Q. And, in fact, that deadline, 365-day  
8 deadline, passed and no action was taken by the  
9 city, correct?

10 A. No action indicated by this  
11 document, correct.

12 Q. And are you aware of any action?

13 A. I am not.

14 Q. And you would agree that, according  
15 to this city document, the state Department of  
16 Health believed that the discharge of raw  
17 sewage into the river created a nuisance,  
18 correct; that's the language used in this  
19 document?

20 A. Yes.

21 Q. And you would agree with that  
22 characterization, would you not?

23 A. I believe I would.

24 Q. Why don't you go back to Exhibit 6.  
25 For now, you'll be relieved to know we're



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2 through the 1930s and we're up to 1941.

3 Go to the last page, if you will,  
4 sir. I'm sorry. Not the last page. Page 4.

5 A. Page 4.

6 Q. This document indicates in March of  
7 1941, the state legislature passed an act  
8 prohibiting cities not located on the  
9 tidewater --

10 (The Court Reporter requested  
11 clarification.)

12 Q. On tidewater -- by the way, Spokane  
13 is not located on tidewater, correct?

14 A. Correct.

15 Q. Having a population of over 100,000  
16 inhabitants.

17 As of 1940, Spokane had greater than  
18 100,000 occupants, did it not?

19 A. I believe so.

20 Q. Continuing: From discharging sewage  
21 into waters used for human and animal  
22 consumption or for domestic --

23 (The Court Reporter requested  
24 clarification.)

25 Q. -- from discharging sewage into

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2 waters used for human or animal consumption or  
3 for domestic services.

4 Did I read that correctly?

5 A. You did.

6 Q. So this Washington state law, which  
7 was passed in 1941, prohibited cities such as  
8 Spokane from discharging sewage into the  
9 Spokane River, correct?

10 A. Yes.

11 Q. The City of Spokane, to this day, is  
12 still discharging sewage into the Spokane  
13 River?

14 A. On occasion, in accordance with our  
15 NPDES waste discharge permit, we are.

16 Q. So the answer is yes?

17 A. Yes.

18 Q. And that law was passed about 80  
19 years ago, correct?

20 A. Approximately, yes.

21 Q. In 1945, the state of Washington  
22 passed a law that established a pollution  
23 control commission to safeguard the quality of  
24 waters, correct?

25 A. I'm not familiar with that. Where

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2 A. That is correct.

3 Q. I believe that a sewage treatment  
4 bond was actually passed in 1946 to pay for  
5 that facility, correct?

6 A. I believe that is correct.

7 Q. Can you explain the 12-year delay in  
8 constructing the treatment facility?

9 A. Yes. There is a significant amount  
10 of work involved in building, first of all,  
11 interceptor sewers along the river to  
12 capture -- where all of the original sewers  
13 discharged directly to the river, there were  
14 several miles of large-diameter pipe that had  
15 to be designed and built to intercept that flow  
16 and bring the route -- or the flow route out to  
17 the current treatment plant site. In addition,  
18 the treatment plant itself had to be built and  
19 numerous pump stations -- not numerous -- some  
20 pump stations were required to get the river --  
21 the flow across the river as well, at least  
22 two.

23 Q. So in 1958, primary treatment only  
24 is constructed?

25 A. Yes.

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2 Q. And when the 1958 plant was  
3 installed, it had insufficient capacity in both  
4 respects, correct, to handle -- to handle the  
5 amount of water coming in during rain events?

6 A. That is correct.

7 Q. As a result of which raw sewage  
8 continued to be discharged into the Spokane  
9 River in violation of the law, correct?

10 A. It continued to discharge overflows  
11 to the river, apparently in violation of -- to  
12 the extent that it was a nuisance.

13 Q. Okay. The -- why don't we mark this  
14 as 8.

15 (WHEREUPON, Hendron Deposition  
16 Exhibit 8: Article entitled Failure to Act  
17 was marked for identification.)

18 Q. We've marked as Exhibit 8 a document  
19 from the American Society of Civil Engineers.

20 Are you a member of that  
21 organization?

22 A. I am.

23 Q. And do you get their publications?

24 A. I get their monthly magazine.

25 Q. This is one of their publications.

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2 one, upgrade existing treatment facilities to  
3 secondary treatment and provide improved  
4 disinfection.

5 A. Yes.

6 Q. Would it would be fair to conclude,  
7 in reading this City of Spokane document, that  
8 the Department of Ecology ordered Spokane to  
9 install a secondary treatment facility,  
10 correct?

11 A. They did.

12 Q. And that's March of 1968?

13 A. Yes.

14 Q. They ordered the city to conduct a  
15 study to assess the nature --

16 (The Court Reporter requested  
17 clarification.)

18 Q. -- assess the nature and magnitude  
19 of excessive flow problems; is that correct?

20 A. Yes, it is.

21 Q. They ordered the city to determine  
22 the most feasible methods of effectively  
23 controlling or eliminating overflows?

24 A. That is what it says.

25 Q. They ordered the city to develop a

1 LARS HENDRON

2 early '70s.

3 Q. Got it.

4 It didn't come online until 1977?

5 A. Fully, yes.

6 Q. Okay. Nine years after you received  
7 this order?

8 A. Yes.

9 Q. Okay. And how about controlling  
10 excessive overflows, what technological  
11 solutions were available in the '60s to address  
12 that?

13 A. At that time, to the best of my  
14 knowledge, separating the stormwater from the  
15 combined sewage so that the stormwater would go  
16 to the river without being blended with sewage  
17 and causing overflows was the treatment  
18 technology -- or I should say, was the  
19 technology available to control excessive flows  
20 to plants.

21 Q. Isn't it true that construction of  
22 overflow storage tanks were available then?

23 A. I can't speak to that. I don't  
24 know.

25 Q. Well, we'll show you some documents

1 LARS HENDRON

2 of Spokane sewer system contains combined  
3 sewers that overflow during periods of storm  
4 runoff.

5 (The Court Reporter requested  
6 clarification.)

7 Q. I'm sorry. I'll start again.

8 The City of Spokane sewer system  
9 contains combined sewers that overflow during  
10 periods of storm runoff.

11 Is that what it says?

12 A. I am looking for that sentence.

13 Q. It's the first sentence under  
14 background.

15 A. The one I'm reading says: The City  
16 of Spokane owns and operates -- are we on Page  
17 2?

18 Q. We're on Page 1.

19 A. I'm sorry. I guess we should be on  
20 the same page.

21 Yes, this document says the City of  
22 Spokane sewer system contains combined sewers,  
23 et cetera, as you said.

24 Q. And the combined sewers are waste  
25 and stormwater, correct?

1 LARS HENDRON

2 A. Correct.

3 Q. And what happens is if it storms --  
4 if it is stormy and rainy, the system can't  
5 handle it, right?

6 A. More rain enters the storm -- enters  
7 the pipes than can be conveyed -- more rain  
8 enters the pipes up in the neighborhoods and  
9 the industrial areas than the capacity of the  
10 interceptors to carry the flow to the plant.

11 Q. Correct.

12 A. Yeah, and the plant as well.

13 Q. So according to the design, as it  
14 existed in 1970, and really exists to this day,  
15 to the extent that you haven't built those  
16 tanks, is that when the system gets overloaded  
17 the overflow is diverted into the Spokane  
18 River, correct?

19 A. That is correct.

20 Q. And that would be the untreated  
21 waste that sometimes appears in the river?

22 A. Yes, blended with rain runoff.

23 Q. And what this report -- the gist of  
24 this report, if you will -- you're familiar  
25 with this document, are you not?



1 LARS HENDRON

2 A. Yes, I am.

3 Q. Okay. Is to figure out ways to end  
4 that situation, right?

5 A. To control it or minimize it or  
6 reduce it, yes.

7 Q. And so it says: Dry weather  
8 sanitary sewage flows are treated in the city's  
9 primary sewage treatment plant.

10 There are dry weather overflows  
11 still, are there not?

12 A. Very rarely.

13 Q. But there are?

14 A. Yes.

15 Q. Out of concern for the quality of  
16 the Spokane River, and in response to  
17 directives from the Washington Department of  
18 Ecology, the city has commissioned this study  
19 and report which outlines a program for  
20 mitigating overflows and upgrading the sanitary  
21 sewage plant.

22 Did I read that correctly?

23 A. Yes, you did.

24 Q. So we've gone through some of the  
25 orders that the city had received from the

1 LARS HENDRON

2 date of this document, the combined sewer  
3 overflow annually was 740 million gallons,  
4 correct?

5 A. That is what this document says,  
6 yes.

7 Q. Which included 160 million gallons  
8 of untreated sewage, sanitary sewage, correct?

9 A. Yes, that was their estimate in  
10 1972.

11 Q. And it includes thousands of pounds  
12 of suspended solids, correct?

13 A. Yes, it does.

14 Q. And that's not good for the river,  
15 is it?

16 A. It's not.

17 Q. It includes thousands of pounds of  
18 BOD?

19 A. Yes.

20 Q. Can you remind everyone what BOD  
21 stands for?

22 A. Biological oxygen demand.

23 And may I clarify -- or are we  
24 talking still just about the third and fourth  
25 lines?

1 LARS HENDRON

2 sewer overflows would be eliminated.

3 Is that what it says?

4 A. That is what it says.

5 Q. So the thinking here is that if we  
6 separate the stormwater system from the  
7 sanitary sewage system, you would eliminate the  
8 overflow incidence, correct?

9 A. Yes.

10 Q. Okay. Why don't we go to the next  
11 page, 18, right-hand column, first full  
12 paragraph. I'm going to read this to you, and  
13 you tell me if I'm reading it correctly.

14 Interception could be accomplished  
15 by providing a somewhat smaller interceptor  
16 sewer and storage tanks to accept peak flows  
17 above the interceptor capacity.

18 A. Yes, you read that correctly.

19 Q. Those are below ground storage tanks  
20 to store excess stormwater, correct?

21 A. Presumably, they would be  
22 underground, but definitely storage tanks to  
23 hold sewage flow.

24 Q. And that's the sort of CSO  
25 facilities that you're building now, correct?

1 LARS HENDRON

2 A. That is correct.

3 Q. So you would agree with me that  
4 storage tanks, as a technologically feasible  
5 way of dealing with system overflows, were  
6 available in 1972, correct?

7 A. This document indicates that they  
8 are.

9 Q. This is a city document?

10 A. Yes, prepared for the city.

11 Q. Okay. And there is discussion of  
12 constructing these storage tanks before PCBs  
13 were ever detected in the sewer system,  
14 correct, in 1972?

15 A. To the best of my knowledge, yes.

16 Q. And then it goes on and has an  
17 extensive discussion, and I'm -- again, I don't  
18 want to keep you here any longer than  
19 necessary, but if you go to D, application for  
20 individual areas, it talks about --

21 A. Yes.

22 Q. -- the options of putting these  
23 storage tanks in various outflow areas,  
24 correct, or overflow points, as they call it in  
25 this document?

1 LARS HENDRON

2 A. Yes, it appears to indicate where  
3 they could go.

4 Q. Right. And, again, this is the same  
5 sort of construction -- again, the details are  
6 different, but the concept of putting storage  
7 tanks for a water overflow -- to prevent  
8 overflow into the river, this is something that  
9 was discussed and really cost out in 1972,  
10 correct?

11 A. Yes.

12 Q. And those are the facilities that  
13 had been built and are being built now,  
14 correct? Again, not the same engineering  
15 detail.

16 A. Similar, yeah, conceptually similar.

17 Q. And if you turn to, I'm sorry, Page  
18 29.

19 A. Two, nine?

20 Q. Two, nine.

21 It talks about nutrient removal; is  
22 that correct?

23 A. Yes.

24 Q. And it discusses phosphorus, and we  
25 discussed phosphorus, correct?

1 LARS HENDRON

2 A. Yes, we have.

3 Q. And it says: The installation of  
4 tertiary chemical precipitation process  
5 following biological treatment could achieve  
6 phosphorus removal; and it goes on from there,  
7 right?

8 A. Yes, it does.

9 Q. And that's -- tertiary care is the  
10 next level treatment, correct?

11 A. Correct.

12 Q. And so already in 1972, the city was  
13 contemplating a next-level treatment focused on  
14 phosphorus removal, correct?

15 A. Yes.

16 Q. And again, this was before PCBs were  
17 ever detected in the system?

18 A. Correct.

19 Q. If we can go back to -- and if you  
20 turn to -- not paginated. Maybe I can just  
21 show you mine, with your counsel's permission,  
22 it's not paginated, but perhaps if I can  
23 show --

24 MR. LAND: That's fine.

25 BY MR. GOUTMAN:

1 LARS HENDRON

2 Q. So what is being contemplated in  
3 1972 is something, and this -- I think there's  
4 a really famous photographer who took this, his  
5 name is Goutman.

6 MR. GOUTMAN: Can we mark this as an  
7 exhibit.

8 (WHEREUPON, Hendron Deposition  
9 Exhibit 13: Photograph was marked for  
10 identification.)

11 Q. Could you identify what that shows?  
12 It was taken, I'll represent to you, last year  
13 sometime. I forget. It may be the same day I  
14 met you at the storage facility -- not storage  
15 facility -- the treatment facility.

16 A. This shows our CSO Basin 26 control  
17 facility under construction. It's probably  
18 about one-third done at this point.

19 Q. But conceptually -- again, broadly,  
20 conceptually, that was the sort of thing that  
21 was discussed in 1972 in searching for  
22 solutions to the overflow problem, correct?

23 A. It is.

24 Q. Okay. Thank you.

25 MR. GOUTMAN: 1972 -- mark this as

1 LARS HENDRON

2 13 --

3 THE COURT REPORTER: 14.

4 (WHEREUPON, Hendron Deposition  
5 Exhibit 14: Clean Water Act was marked for  
6 identification.)

7 Q. The federal government passed what  
8 would later be renamed the Clean Water Act,  
9 October 1972, correct?

10 A. Please restate your --

11 Q. Okay. Well, there was a federal  
12 pollution control act that was passed, I  
13 believe, in the 1940s, correct?

14 A. Yes.

15 Q. And in 1972, it was amended,  
16 correct?

17 A. Yes.

18 Q. And this is, at least, a couple of  
19 pages of the amendment, correct?

20 A. They appear to be, yes.

21 Q. Okay. And am I correct that the  
22 Federal Water Pollution Control Act, later in  
23 the '70s, I think 1976 or '77, was renamed the  
24 Clean Water Act?

25 A. Yes, at some point in the '70s.



1 LARS HENDRON

2 regulations. Okay?

3 What is a NPDES permit?

4 A. NPDES stands are National Pollutant  
5 Discharge Elimination System. It's a federal  
6 system under the Clean Water Act whereby waste  
7 discharge permits are issued to plants like  
8 ours.

9 Q. Basically, you correct me if your  
10 [sic] understanding is wrong, basically, what  
11 the federal law is saying is, you don't have a  
12 right to dump stuff in the river; you can do it  
13 by permission via an NPDES permit, right?

14 A. That is correct.

15 Q. And the permit will set certain  
16 conditions for your dumping stuff into a river,  
17 right?

18 A. It will set the effluent limit that  
19 we must meet and the operational requirements  
20 under which we run the plant.

21 Q. And the -- sorry.

22 MR. LAND: No barking dog this time  
23 though.

24 MR. GOUTMAN: No, I left my phone in  
25 the other room.

1 LARS HENDRON

2 BY MR. GOUTMAN:

3 Q. So the NPDES permits, basically,  
4 tell you what you can dump and how much you can  
5 dump, right?

6 A. They identify discharge, they  
7 indicate our flow capacity and the pollutant  
8 concentration and loads associated with that.

9 Q. And what are TMDLs?

10 A. TMDL stands for Total Maximum Daily  
11 Load. It is a -- it indicates the assimilative  
12 capacity of a receiving water body to  
13 accommodate a pollutant load from all sources  
14 that come to it.

15 Q. And are TMDLs set by regulatory  
16 authorities for certain substances?

17 A. They are.

18 Q. And have they been set for certain  
19 substances for the Spokane River?

20 A. There have been, yes.

21 Q. Am I correct that there is no TMDL  
22 for PCBs?

23 A. That's correct.

24 Q. We'll get into it later, but there  
25 are TMDLs for numerous other constituents,

1 LARS HENDRON

2 correct?

3 A. For a handful, yes.

4 Q. Okay. Well, why don't we get to the  
5 1974 NPDES permit, which I think is the first  
6 permit the Riverside facility ever received.

7 Is that your understanding?

8 A. I could not remember when the first  
9 one was, so -- and I have not seen it.

10 (WHEREUPON, Hendron Deposition  
11 Exhibit 15: NPDES permit was marked for  
12 identification.)

13 Q. So we have marked as Exhibit 15 an  
14 NPDES permit, correct?

15 A. It certainly appears to be.

16 Q. And it's dated -- issuance date is  
17 October 25, 1974?

18 A. Yes.

19 Q. And it's issued by the Department of  
20 Ecology?

21 A. Yes.

22 Q. To the City of Spokane?

23 A. That is correct.

24 Q. And it is relative to the --

25 (The Court Reporter requested

1 LARS HENDRON

2 clarification.)

3 Q. -- to the municipal sewage treatment  
4 plant of the City of Spokane, correct?

5 A. Yes, it is.

6 Q. That would be the Riverside plant?

7 A. Currently known as the Riverside  
8 Park Water Reclamation Facility.

9 Q. Okay. So if I call it Riverside,  
10 you know what I'm talking about?

11 A. Yes.

12 Q. And if you turn to the second page,  
13 it sets certain effluent limitations, right?

14 A. Yes.

15 Q. And effluent is the stuff that  
16 leaves the plant, right?

17 A. Correct.

18 Q. And influent is the stuff that's  
19 coming in?

20 A. That's what we receive, yes.

21 Q. Okay. And it sets monthly and  
22 weekly average limits for biochemical oxygen  
23 demand, BOD, right?

24 A. Yes.

25 Q. Suspended solids?

1 LARS HENDRON

2 neutral.

3 Q. Okay. So -- and then it has final  
4 effluent limitations as of -- this is -- the  
5 first paragraph, if you will, relates to  
6 limitations from 1974, the date of this permit,  
7 until June 29, 1977, right?

8 A. Yes.

9 Q. And then the second paragraph  
10 relates to new effluent limitations -- more  
11 restrictive limitations that would be in effect  
12 on June 30, 1977, right?

13 A. Yes.

14 Q. So it gives you some time to gear  
15 up, right?

16 A. Yes.

17 Q. And it sets limitations for the same  
18 constituents, but also for total phosphorus,  
19 correct?

20 A. Yes, it does.

21 Q. And could you remind us why it is so  
22 important to control phosphorus discharges into  
23 the river?

24 A. Phosphorus is the primary nutrient  
25 that is related with reducing dissolved oxygen

1 LARS HENDRON

2 in Long Lake.

3 Q. And that ultimately can cause harm  
4 to aquatic life, correct?

5 A. It can adversely impact fish.

6 Q. It goes on to say -- if you look at  
7 the next page, it says that, part B, you're to  
8 construct facilities at the treatment plant for  
9 storage and treatment of flows in excess of the  
10 design secondary --

11 (The Court Reporter requested  
12 clarification.)

13 Q. Let me start again.

14 The permittee shall construct  
15 facilities at the treatment plant site for the  
16 storage and treatment of flows in excess of the  
17 design secondary capacity of the named  
18 facility.

19 That's what it says, in part, right?

20 A. That is what it says.

21 Q. Am I correct that during this time  
22 frame, sometimes there was simply too much  
23 water coming into -- water and waste coming  
24 into Riverside, the treatment plant would  
25 simply be bypassed, and you'd have direct

1 LARS HENDRON

2 esthetic degradation and bacterial pollution,  
3 will truly prevent upgrading the Spokane River  
4 to Class A status until completion of the  
5 corrections.

6 Did I read that correctly?

7 A. Yes, you did.

8 Q. So what the Army Corps of Engineers  
9 and the other participants in this study are  
10 saying is that you're still having, even after  
11 this secondary plant comes -- treatment plant  
12 comes online, you still have these overflow  
13 events, correct?

14 A. Yes.

15 Q. Which significantly degrades water  
16 quality, correct?

17 A. That was their judgment at the time.

18 Q. And you have no reason to dispute  
19 that?

20 A. No.

21 Q. And it discusses the -- one of the  
22 alternative methods of dealing with this  
23 overflow problem, which is separating this  
24 storm and sewage water, and if you look at the  
25 bottom full paragraph of that --

1 LARS HENDRON

2 Q. But what this report is talking  
3 about is the data shows that, and I'm quoting:  
4 The data shows that the total fecal coliform  
5 counts rise with each significant rainstorm  
6 because of the combined sewer overflows.

7 Correct?

8 A. Yes.

9 Q. Going down further: In addition to  
10 the bacteriological contamination, combined  
11 sewer overflows add nutrients to the --

12 (The Court Reporter requested  
13 clarification.)

14 Q. Okay. In addition to  
15 bacteriological contamination, combined sewer  
16 overflows add nutrients to the river, thus  
17 contributing to Long Lake's -- help me out --  
18 eutrophication?

19 A. Eutrophication.

20 Q. That's e-u-t-r-o-p-h-i-c-a-t-i-o-n.

21 A restoration of Long Lake can be  
22 expected to occur with upgrading of the sewage  
23 treatment plant and elimination of the combined  
24 sewer overflows.

25 Is that what it says?



1 LARS HENDRON

2 A. Yes, it is.

3 Q. And eutrophication means what?

4 A. When a water body receives too many  
5 nutrients and the plants and the -- everything  
6 just starts really growing, it eventually kind  
7 of -- the oxygen levels drop off and  
8 eventually, long-term, a natural lake will turn  
9 into a meadow from that process.

10 Q. A what?

11 A. A natural lake will eventually turn  
12 into a meadow from that process over time.

13 Q. What effect does that have to the  
14 aquatic life?

15 A. It's the reduction of dissolved  
16 oxygen that starts to affect the fish.

17 Q. It could kill them?

18 A. It could, if it was long enough.

19 Q. It says here, continuing on: The  
20 overflow of sanitary sewage into the river  
21 creates a significant potential for the  
22 transmission of diseases.

23 A. It does say that.

24 Q. The health agencies report --  
25 I'm skipping some lines -- the health agencies

1 LARS HENDRON

2 Page 28 now, which is 3295 --

3 A. All right.

4 Q. -- deals with constructing those  
5 storage tanks that we have been talking about,  
6 right; a list of alternative studies,  
7 alternative one?

8 A. Yes.

9 Q. And those were the storage tanks  
10 that were -- I saw first mentioned in a 1972  
11 city document, right?

12 A. Yes.

13 Q. So this is further development of  
14 that theme, right?

15 A. It appears to be, yes.

16 Q. And the idea is that you can park  
17 excess water in these storage tanks until  
18 capacity is sufficient to handle it at the  
19 treatment plant?

20 A. Correct.

21 Q. And again, in 1977, this is before  
22 PCBs were ever detected in the water system,  
23 correct?

24 A. Yes.

25 Q. And if you turn to Page 3297, again,

1 LARS HENDRON

2 they talk about underground -- the city again  
3 talks about underground concrete tanks,  
4 correct?

5 A. Yes.

6 Q. And these are the same underground  
7 tanks that are being constructed, we saw a  
8 photograph of 1-CSO 26, correct?

9 A. Correct.

10 Q. And Table 9 consists of, again, the  
11 same sort of information that we saw in the  
12 1972 document, and that is the location and  
13 capacity of these various tanks, they are  
14 called storage basin sizes, correct?

15 A. Yes.

16 Q. And all this planning for these  
17 storage tanks was underway by 1972 and 1977,  
18 correct?

19 A. Yes.

20 Q. And --

21 A. May I go back and read that with  
22 that question?

23 Q. Sure.

24 A. I think at this point the tanks were  
25 being considered along with the other

1 LARS HENDRON

2 plan, correct?

3 A. Yes.

4 Q. That we have already discussed?

5 A. Correct.

6 Q. So I just want to take it through a  
7 couple of points here they are discussing. If  
8 you turn to -- this is a Google document --  
9 Page 7.

10 A. All right.

11 Q. It talks about the separating of the  
12 storm from the wastewater, correct?

13 A. Yes.

14 Q. And that's something that, in fact,  
15 the city undertook as of the 1980s?

16 A. Beginning in the 1980s, continuing  
17 through about 1992.

18 Q. Okay. And they talk about how this  
19 would reduce hydraulic overloading, correct, of  
20 the treatment plant?

21 A. Correct.

22 Q. They also talk about -- the EPA is  
23 talking about -- let me read the sentence so  
24 that we're all on the same page.

25 This will reduce hydraulic

1 LARS HENDRON

2 and recharge?

3 A. Yes.

4 Q. What does that mean?

5 A. That would be what's equivalent to  
6 an infiltration facility where the water is  
7 diverted out of the street into a depressed  
8 area to allow it to soak into the ground.

9 Q. That's the sort of thing that you're  
10 doing now?

11 A. Yes.

12 Q. In some areas that I've visited  
13 around the city --

14 A. Yes.

15 Q. -- where the streets are being torn  
16 up?

17 A. Yes.

18 Q. Okay. That's the very thing that  
19 the EPA is recommending in 1979?

20 A. Yes.

21 Q. Am I correct that this was before  
22 PCBs were ever detected in stormwater in the  
23 city?

24 A. I believe so, yes.

25 Q. Use of porous asphalt in new

1 LARS HENDRON

2 construction areas, improved control over used  
3 oil disposal?

4 A. Yes.

5 Q. Investigation of alternative deicing  
6 methods?

7 A. That is what it says.

8 Q. Yeah. And these are all the things  
9 that the city's been doing, or is in the  
10 process of doing since the EPA told you to do  
11 it, right?

12 A. Most of them. I believe screening  
13 of stormwater outfall points is not a feasible  
14 thing. The screening has to happen at the  
15 street where the gutter inlet is.

16 Other than that, I believe all of  
17 these are being employed to some extent.

18 Q. Okay. And these are things that the  
19 city has done ever since the EPA told you to do  
20 it in 1979?

21 A. Some of them even probably before  
22 that, yes.

23 Q. Like street sweeping?

24 A. Street sweeping and the cleaning of  
25 catch basins, yes.

1 LARS HENDRON

2 Q. It says: The EPA encourages the  
3 city to consider such measures since presently  
4 there is no treatment requirement for  
5 stormwater runoff. However, it is possible  
6 that the federal treatment requirements may be  
7 established at some future date. This may  
8 include issuance of general NPDES permits for  
9 stormwater discharges and required  
10 implementation of certain best management  
11 practices.

12 And they encouraged voluntary  
13 adoption of those practices, correct?

14 A. Yes.

15 Q. And that's exactly what the city has  
16 done?

17 A. To a large extent yes.

18 Q. Yeah. In fact, there is now a NPDES  
19 permit for your stormwater, correct?

20 A. Correct.

21 Q. Am I correct that there is no limit  
22 for -- quantitative limit for PCBs?

23 A. That is correct.

24 Q. And if you turn -- there was some  
25 testimony given, if you go to the very back,

1 LARS HENDRON

2 Q. Okay. But in any event, you were  
3 six years late from the date stipulated in this  
4 regulation?

5 A. It appears so.

6 Q. And, again, this CSO reduction plan  
7 goes back to the discharging of untreated  
8 waste, correct?

9 A. Yes.

10 Q. And that has been a problem since --  
11 we've identified since at least 1885, correct?

12 A. Yes.

13 Q. So we have another NPDES permit.  
14 I'm going to try to go through these quickly.

15 (WHEREUPON, Hendron Deposition  
16 Exhibit 21: NPDES permit was marked for  
17 identification.)

18 Q. Placed before you, another NPDES  
19 permit, issuance date 1986, expiration date  
20 1991, issued by the Department of Ecology to  
21 the City of Spokane regarding the Riverside  
22 facility, correct?

23 A. Yes.

24 Q. And once again, it discusses  
25 effluent limitations, correct?



1 LARS HENDRON

2 A. Yes.

3 Q. And once again, those effluent  
4 limitations relate to BOD, total suspended  
5 solids, fecal coliform, bacteria, total  
6 residual chlorine and pH, correct?

7 A. Yes.

8 Q. And there's no reference to PCBs in  
9 this permit, correct?

10 A. Not in this section.

11 Q. Take your time and read it.

12 A. I do not see PCBs listed.

13 Q. Can you go to Page 7 for me?

14 A. Yes.

15 Q. Paragraph C?

16 A. Yes.

17 Q. It's titled Correction of Sewage  
18 Overflows, correct?

19 A. Yes.

20 Q. It says that: On May 10, 1995, the  
21 permittees submitted a construction schedule  
22 for storm sewer separation through the year  
23 1989.

24 Is that what it says?

25 A. Yes.

1 LARS HENDRON

2 Q. The reason we're showing you this is  
3 that it talks about that permit.

4 A. Uh-huh.

5 Q. So it fills in a missing date on the  
6 timeline. Okay?

7 So according to this document, a  
8 previous permit was issued on April 24, 1992;  
9 fair enough?

10 A. Yes.

11 Q. And that permit placed effluent  
12 limitations on the same sorts of constituents  
13 we have been talking about, right?

14 A. Correct.

15 Q. BODs, total suspended solids, pH,  
16 fecal coliform, bacteria, residual chlorine.

17 And now we have total pneumonia. Is  
18 that new?

19 A. I don't think that was new. I think  
20 that was in the previous, but the metals  
21 appear -- mercury and silver, I believe, could  
22 have been new.

23 Q. But we have phosphorus again,  
24 correct?

25 A. Yes.

1 LARS HENDRON

2 couple of lines, I think -- did I read this  
3 already?

4 During periods of heavy rainfall and  
5 snow melt -- yeah, I think we read this  
6 already.

7 A. May have, or something very similar.  
8 I don't remember -- well, I don't remember  
9 reading this one exactly.

10 Q. Fine. Why don't we read it. You  
11 can read it for me, since it's your document.

12 A. Sure.

13 During periods of heavy rainfall or  
14 snow melt, Spokane had experienced hydraulic  
15 overloading at its primary treatment plant.  
16 Excess raw sewage and stormwater had to be  
17 released into the river at the treatment plant  
18 and at 33 other outfalls, CSOs.

19 In the 1960s, there were as many as  
20 45 CSO locations, some with an overflow  
21 frequency up to 140 times a year. And then the  
22 reference --

23 Q. And that's what you and the city  
24 wrote, and it was accurate, correct?

25 A. Yes.

1 LARS HENDRON

2 A. Yes, that is what it says.

3 Q. So we have phosphorus and now  
4 ammonia, correct?

5 A. Correct.

6 Q. As drivers of these wastewater  
7 treatment plants, correct?

8 A. Yes.

9 Q. The NPDES permit -- continuing --  
10 the NPDES permit was issued by Ecology on April  
11 24, 1992, which was effective through April 30,  
12 1997. The 1992 permit replaced the city's 1986  
13 permit. 1992 permit required year-round  
14 ammonia removal, a further reduction in  
15 chlorine discharge and set discharge limits on  
16 mercury and silver.

17 That's what it says?

18 A. Yes.

19 Q. And that's accurate, correct?

20 A. I believe so.

21 Q. And then it discusses the treatment  
22 plant at ES-15.

23 A. All right.

24 Q. It says that: The treatment plant  
25 requires improvements to, one, meet Ecology's

1 LARS HENDRON

2 improvements are intended to reduce effluent  
3 ammonia discharge to the river. Other  
4 improvements are intended to maintain existing  
5 treatment capacity for primary treatment of  
6 CSOs, phosphorus removal and rehabilitation of  
7 existing process equipment.

8 Is that what it says?

9 A. Yes.

10 Q. Now go back to Exhibit 26.

11 A. Yes.

12 Q. So that was a 1999 plan. Now we're  
13 up to 2000, which is the NPDES permit from  
14 March/April of 2000, correct?

15 A. Yes.

16 Q. And it's issued to the City of  
17 Spokane, and it relates to the Riverside  
18 Treatment Facility?

19 A. Yes.

20 Q. And in this plan, am I correct, if  
21 you go to two pages, Page 6 of 43 --

22 A. All right.

23 Q. -- it has the usual suspects, right?

24 A. Yes.

25 Q. In terms of limits, BOD, total

1 LARS HENDRON

2 suspended solids, fecal coliform bacteria, pH,  
3 as well as ammonia, residual chlorine,  
4 phosphorus, cadmium, lead and zinc, correct?

5 A. Yes.

6 Q. No limit on PCBs, correct?

7 A. Correct.

8 Q. And I think you have agreed that  
9 there's never been a quantitative limit on PCB  
10 discharge from your plant, correct?

11 A. In no prior permits, correct.

12 (WHEREUPON, Hendron Deposition  
13 Exhibit 28: Noncompliance warning was  
14 marked for identification.)

15 Q. Sir, we have placed before you  
16 Exhibit 28, which is a -- essentially a notice  
17 of violation for noncompliance issued by the  
18 Department of Ecology to the City of Spokane,  
19 correct?

20 A. Yes, a noncompliance warning.

21 Q. Warning. I'm sorry.

22 A. Yes.

23 Q. And it says that: No later than May  
24 1, 2000, the city shall submit a monitoring  
25 plan to Ecology for review and approval, which

1 LARS HENDRON

2 plan, and I am relatively confident it was  
3 submitted on time.

4 Q. And why is it important that Ecology  
5 know what's going on with respect to CSO  
6 impacts and efficacy controls?

7 A. Ecology is seeking assurance that  
8 the program that we were going to spend money  
9 building would, indeed, achieve the  
10 requirements.

11 Q. I guess I'm not understanding.  
12 What were you building as of May  
13 1st, 2000?

14 A. At that point, we were at the  
15 beginning stages of sizing the CSO tanks that  
16 have now largely been built, siting and sizing  
17 those.

18 And there was -- the monitoring plan  
19 was to get more information about the -- I  
20 guess the pollutants in the CSO effluent, I  
21 believe.

22 Q. And then it says: No later than May  
23 1st, 2000, the city shall submit to Ecology for  
24 review and approval a public notification  
25 system to ensure the public receives adequate

1 LARS HENDRON

2 notification of CSO occurrences and CSO  
3 impacts.

4 And that has to be developed by June  
5 30, correct?

6 A. Yes.

7 Q. And that requires posting of public  
8 notice signs in conspicuous locations, correct?

9 A. I believe so.

10 Q. So this was required back in 2000,  
11 the notice?

12 A. Yes.

13 Q. The notice signs regarding --

14 A. Yes.

15 Q. -- CSO outfalls.

16 And nowhere in this document does it  
17 relate that requirement to PCBs, correct?

18 A. No, not to the best of my knowledge.

19 Q. In fact, all of the signage you see  
20 in the City of Spokane regarding this issue was  
21 required regardless of PCBs; you were already  
22 required to do this, correct?

23 A. We were required to put the signs up  
24 in accordance with this document and the CSO  
25 program.



1 LARS HENDRON

2 Q. Right. And this was not related to  
3 PCBs?

4 A. Not that I am aware of.

5 Q. The document here says, in the next  
6 page, and I guess this is the genesis of this  
7 document, it says: The document submitted to  
8 Ecology did not contain plans that fulfilled  
9 any of these CSO requirements.

10 This letter is dated August 10,  
11 2001, right?

12 A. Yes, it is.

13 Q. And so does this refresh your  
14 recollection as to whether you met the  
15 requirements?

16 A. It indicates that we did not meet  
17 all of them, but I did not -- I did not have  
18 personal knowledge of the timing of our efforts  
19 at that point.

20 Q. Okay. So let's just read the rest  
21 of this, and perhaps you'll want to  
22 recharacterize what the city did and didn't do.

23 A. Yes.

24 Q. It says: The document submitted to  
25 Ecology did not contain plans that fulfilled

1 LARS HENDRON

2 any of the CSO requirements, referring to  
3 requirements on the previous page that you and  
4 I discussed?

5 A. Yes.

6 Q. That had deadlines of June 30, 2000,  
7 right?

8 A. That is what it says.

9 Q. And then it goes on to say: It is  
10 important that the city take immediate action  
11 to correct these deficiencies. In the past,  
12 Ecology has had several discussions with city  
13 staff and consultants where expectations were  
14 clearly conveyed, correct?

15 A. Yes.

16 Q. As usual, we're willing to work  
17 closely with the city staff to implement plans  
18 that are acceptable, but notification to the  
19 public and protection of users of the Spokane  
20 River and Long Lake from CSO impacts cannot be  
21 neglected any longer.

22 Is that what it says?

23 A. That is what it says.

24 Q. So the Department of Ecology is  
25 explicitly accusing the city of neglecting its

1 LARS HENDRON

2 legal obligations, correct?

3 A. It appears to say that.

4 Q. So, again, to revisit your earlier  
5 testimony on this, is it fair to say, or to  
6 conclude, based upon this letter that the city  
7 did not meet the permit deadlines of June 30,  
8 2000 as set forth in this letter?

9 A. It appears the city did not meet  
10 Item 4, and only partially met Item 5. We had  
11 the signs in place, but the other portions not.

12 Q. Okay.

13 MR. GOUTMAN: What are we up to, 29?

14 MR. HANSEN: 29.

15 (WHEREUPON, Hendron Deposition  
16 Exhibit 29: Withdrawn document was marked  
17 for identification.)

18 Q. So I've placed before you a  
19 memorandum to Dale Arnold from a Robert  
20 Beaumier dated October 4, 2004?

21 A. Yes.

22 MR. LAND: I'm going to object here.  
23 This should not have been produced. I  
24 believe this should be protected under  
25 attorney-client privilege or attorney work

1 LARS HENDRON

2 A. Yes.

3 Q. -- is that accurate?

4 A. (Witness nodded head up and down.)

5 Q. Correct?

6 A. Yes.

7 Q. Ecology approved TMDLs in August of  
8 1999 to address zinc, lead and cadmium  
9 contamination in the Spokane River.

10 And we saw that document, correct?

11 A. I don't remember looking at the  
12 metals TMDL, but I know it exists.

13 Q. I'm sorry.

14 In any event, you would agree that  
15 in August of 1999, the TMDL was issued for  
16 zinc, lead and cadmium contamination as  
17 indicated in the city of Spokane's Stormwater  
18 Management Plan of 2004?

19 A. Yes.

20 Q. And it says that: The national  
21 pollutant discharge elimination system --

22 (The Court Reporter requested  
23 clarification.)

24 Q. The national pollutant discharge  
25 elimination system permits for point source

1 LARS HENDRON

2 discharges to the river now have  
3 performance-based limits of cadmium, lead and  
4 zinc; is that correct?

5 A. Yes.

6 Q. The performance-based limits were  
7 developed using each respective discharges'  
8 effluent monitoring data.

9 Did I read that correctly?

10 A. Yes.

11 Q. And that's accurate, correct?

12 A. Yes.

13 Q. The TMDL was established in November  
14 of 1992 for phosphorus in the river and a TMDL  
15 for dissolved oxygen is currently being  
16 developed.

17 Is that correct?

18 A. Yes.

19 Q. So we know that there are TMDLs  
20 applicable to the Riverside facility as of 1992  
21 for phosphorus, correct?

22 A. Yes.

23 Q. And we know that there are TMDLs  
24 applicable to the Riverside facility for zinc,  
25 lead, cadmium as of August of 1999, correct?

1 LARS HENDRON

2 Q. How about in the 2005 plan?

3 A. I don't believe that they were.

4 Q. Let me ask you this more globally:

5 Can you cite, with respect to the CSO reduction  
6 plan, could you cite to me any engineering  
7 element that was made necessary because of  
8 PCBs, but would have been dispensed with had  
9 PCBs never been invented?

10 A. I do not think so.

11 Q. And same question with the NLT  
12 construction and design.

13 A. I would say yes.

14 Q. The same answer?

15 A. Yes.

16 Q. So there's no element -- design  
17 element that was made necessary specifically to  
18 address PCBs that could have been dispensed  
19 with had PCBs never been invented?

20 A. Not that I'm aware of.

21 Q. The same thing with the MS-4  
22 projects that we see throughout the city and  
23 have been implemented, is there any design  
24 aspect of any of those that were made necessary  
25 by PCBs and that could have been dispensed with

1 LARS HENDRON

2 had PCBs never been invented?

3 A. In terms of design, I would say, no.

4 Q. Okay. Well, we'll get to that  
5 further. Okay?

6 Okay. Do you remember in 2006, you  
7 went on a tour of facilities back east to look  
8 at how they were addressing phosphorus?

9 A. Yes.

10 Q. Can you tell me about that?

11 A. I'm trying to remember which trip  
12 this was.

13 Q. Well, you went to Syracuse, did you  
14 not?

15 A. That's the one. Yes, we visited the  
16 Syracuse, New York, treatment plant, and two  
17 others, I believe; Washington D.C. and  
18 Alexandria, Virginia.

19 Q. And here's one for whatever we're up  
20 to up.

21 MR. HANSEN: 32.

22 MR. GOUTMAN: 32.

23 (WHEREUPON, Hendron Deposition  
24 Exhibit 32: Summary of plant tour was  
25 marked for identification.)

1 LARS HENDRON

2 large --

3 Q. You spent a lot of time.

4 A. Yes, we spent some significant time.

5 Q. And a lot of money?

6 A. Uh-huh.

7 Q. Yes?

8 A. Yes.

9 Q. To meet legal requirements of  
10 phosphorus -- regarding phosphorus, correct?

11 A. Yes.

12 Q. And, in fact, the next-level  
13 treatment was designed specifically to address  
14 phosphorus removal requirements, correct?

15 A. It was -- the primary driver was  
16 phosphorus reduction.

17 (WHEREUPON, Hendron Deposition  
18 Exhibit 34: Eastern Washington Phase II  
19 Municipal Stormwater Permit was marked for  
20 identification.)

21 Q. This is Exhibit 34. We've placed  
22 before you Exhibit 34, which is another permit  
23 issued by Ecology to the City of Spokane  
24 regarding your municipal stormwater system; is  
25 that correct?



1 LARS HENDRON

2 A. Yes.

3 Q. Is this the first stormwater permit  
4 that you were issued?

5 A. Yes.

6 Q. And it was issued on January 17,  
7 with an effective date of February 16, 2007,  
8 correct?

9 A. Correct.

10 Q. And it basically -- I think I  
11 misspoke. I said it was issued to the City of  
12 Spokane. I may have.

13 But it was really an eastern  
14 Washington permit, correct?

15 A. It was a general permit, but it was  
16 issued to the city.

17 Q. Okay. And it's applicable and  
18 binding upon the city, correct; applicable to  
19 and binding upon the city?

20 A. Correct.

21 Q. And it is applicable to owners and  
22 operators of regulated small municipal separate  
23 storm sewer systems located in eastern  
24 Washington; is that correct?

25 A. Yes.

1 LARS HENDRON

2 Q. And that would be you?

3 A. That would include the City of  
4 Spokane.

5 Q. And it talks again about this -- I'm  
6 sorry -- I'm referring to Page 12 of 57. It  
7 talks, once again, about these best management  
8 plans [sic] that we have been talking about  
9 where you guys were talking about in various  
10 city documents since the 1970s?

11 MR. LAND: Best management  
12 practices, right?

13 MR. GOUTMAN: Did I say plans?

14 MR. LAND: Yeah.

15 BY MR. GOUTMAN:

16 Q. I'm sorry. Best management  
17 practices.

18 A. Yes.

19 Q. And they -- well, strike that.

20 It says -- on Page 34 of 57, it  
21 says: The following requirements apply, if  
22 applicable -- I'm paraphrasing -- TMDL is  
23 approved for a stormwater discharges from MS-4s  
24 owned and operated by the permittee; is that  
25 correct?

1 LARS HENDRON

2 if you look at that.

3 A. Yes.

4 Q. Does it call for monitoring?

5 A. Which section? Oh, down here. A.

6 Q. C. Well, stormwater monitoring.

7 A. C1-A. Yes, it does.

8 Q. And that monitoring should include  
9 assessment of the effectiveness of the controls  
10 you place on stormwater-related problems,  
11 correct? I'm looking -- I'm sorry, sir. I'm  
12 looking at Page 36 of 57, section B.

13 A. Yes, under targeted stormwater  
14 management plan effectiveness monitoring.

15 Q. So your answer is yes?

16 A. Just let me reread quickly.

17 Q. Take your time, sir.

18 A. It requires the city -- or required  
19 the city to prepare to conduct monitoring to  
20 determine the effectiveness, and then spelled  
21 out more specifically what's involved in that.

22 Q. Okay. Thank you.

23 Am I correct that this permit does  
24 not specifically mention PCBs?

25 A. I believe it does not.

1 LARS HENDRON

2 Q. I just want to backtrack to a  
3 subject that I mentioned, and I'm sorry for  
4 jumping around late in the day. My brain gets  
5 a little fried.

6 Sir, with respect to the -- all of  
7 these storage tanks that had been built or in  
8 the process of being built, they were -- I  
9 think we have established that they were being  
10 built because of requirements of -- legal  
11 requirements of the permits, correct?

12 A. The permit required, yes.

13 Q. And am I correct that all of that  
14 construction would have been necessary to  
15 comply with those permits, even if PCBs had  
16 never been invented?

17 A. I believe so, yes.

18 Q. And same for the next level  
19 treatment facility, correct?

20 A. Yes.

21 Q. And same for the various MS-4  
22 projects?

23 MR. LAND: Objection. Vague as to  
24 the various MS-4 projects.

25 BY MR. GOUTMAN:

1 LARS HENDRON

2 Q. Okay.

3 A. There was a shift in the impetus  
4 behind the MS-4 projects. When the city became  
5 aware around 2007 with the source assessment  
6 that stormwater from the city was causing or  
7 contributing to the PCB problem, our emphasis  
8 on -- or the driver for our stormwater program  
9 at that point began shifting more toward PCB  
10 compliance than phosphorus.

11 Q. That wasn't my question.

12 A. I'm sorry.

13 Q. Let me ask it again.

14 With respect to the MS-4 projects --  
15 I'm not asking about impetus -- with respect to  
16 the MS-4 projects that had been undertaken or  
17 being undertaken, am I correct those would be  
18 required, under your permits, to require best  
19 management practices, even if PCBs had never  
20 been invented?

21 MR. LAND: Objection. Vague as to  
22 time.

23 MR. GOUTMAN: Go ahead.

24 MR. LAND: I'm asking if you're  
25 talking about current projects or projects

1 LARS HENDRON

2 A. A water quality problem.

3 Q. There is nothing in this permit that  
4 sets forth discharge limits for any particular  
5 substance, correct?

6 A. I believe that's correct.

7 Q. All it does is say you have to adopt  
8 best management practices to address  
9 non-stormwater discharges, correct?

10 A. Yes.

11 Q. It was in 19 -- excuse me -- in 2014  
12 where specific chemicals or constituents were  
13 identified in your stormwater permit, correct?

14 A. I don't recall. I would need to  
15 look at the permit.

16 Q. In any event, we can agree that  
17 there is nothing in this permit that identifies  
18 PCBs?

19 A. I don't recall PCBs identified in  
20 this permit.

21 Q. So in 2014 -- this will be the next  
22 exhibit.

23 MR. HANSEN: 35.

24 MR. GOUTMAN: Number 35.

25 (WHEREUPON, Hendron Deposition

1 LARS HENDRON

2 Exhibit 35: Appendix 2 - Total Maximum  
3 Daily Load Requirements was marked for  
4 identification.)

5 Q. This is part of -- why don't you  
6 look at this for the record. This says Total  
7 Maximum Daily Load (TMDL) Requirements Eastern  
8 Washington Phase II Municipal Water Permit,  
9 August 1, 2014.

10 It says that on the bottom, correct?

11 A. Yes.

12 Q. And if you turn to Page 7 of 10 --

13 A. All right.

14 Q. -- it says at the bottom: Actions  
15 Required: The City of Spokane and Spokane  
16 County shall each develop and implement  
17 monitoring programs for phosphorus, ammonia and  
18 CBOD according to the schedules outlined below.  
19 Flow rates shall also be measured in order to  
20 calculate volumes of stormwater to determine  
21 pollutant loadings.

22 Is that what it says?

23 A. It does.

24 Q. And the name of TMDL is Dissolved  
25 Oxygen Total Maximum Daily Load, correct?

1 LARS HENDRON

2 A. Correct.

3 Q. And the parameters are total  
4 phosphorus, ammonia and CBOD5, correct?

5 A. Yes.

6 Q. And these requirements, according to  
7 this permit, apply to areas served by MS-4s  
8 owned and operated by the permittees within the  
9 TMDL coverage area; is that correct?

10 A. Yes.

11 Q. So they apply to all the cities in  
12 the MS-4 systems, correct?

13 A. Correct.

14 Q. Am I correct that all of the  
15 infrastructure and best management measures  
16 that you have undertaken would be required to  
17 meet this permit, even if PCBs had never been  
18 invented?

19 MR. LAND: Objection. Vague as to  
20 time. Are we talking this time period or  
21 current?

22 MR. GOUTMAN: Speaking. Okay.

23 BY MR. GOUTMAN:

24 Q. Go ahead.

25 A. Please repeat the question.



1 LARS HENDRON

2 removal.

3 Now, let's just step back. Alum is  
4 a chemical that's introduced during the  
5 next-level treatment to precipitate phosphorus,  
6 correct?

7 A. It's actually introduced in all  
8 three: The primary, secondary, tertiary, to  
9 precipitate phosphorus.

10 Q. Okay. Just focusing on the NLT, it  
11 was introduced in the NLT to precipitate  
12 phosphorus, correct?

13 A. Yes.

14 Q. That is, precipitate, meaning get it  
15 out?

16 A. The dissolved pieces of phosphorus  
17 grab onto that and make a particle big enough  
18 that we can capture.

19 Q. It says: Extending phosphorus  
20 removal season looks to benefit water quality  
21 to an extent that might allow Ecology to be  
22 more liberal with the allowable discharge  
23 concentrations. Let me stop.

24 Extending phosphorus removal season,  
25 meaning extending it beyond the -- what's

1 LARS HENDRON

2 Q. I've placed before you the city of  
3 Spokane's comments to draft NPDES permit; is  
4 that correct?

5 A. It appears so, yes.

6 Q. Are you familiar with this document?

7 A. Let me look. I remember we  
8 submitted comments to Ecology.

9 Q. By the way, when is the NLT  
10 scheduled to finish?

11 A. It should be operational in 2021.

12 Q. So you would not incur added  
13 operational costs regarding non-critical season  
14 operation until 2021, correct?

15 A. Correct.

16 Q. So I just want to direct your  
17 attention -- did you say that you were familiar  
18 with this document?

19 A. I remember we submitted comments to  
20 Ecology.

21 Q. Did you have any input?

22 A. I would have reviewed the comments  
23 and possibly added a few thoughts.

24 Q. What is the vetting process for  
25 submitting comments to something like a draft

1 LARS HENDRON

2 NPDES within the city?

3 A. The draft permit comes to the city.  
4 It's circulated amongst, primarily, the  
5 treatment staff who were familiar with the  
6 requirements, and then they provide comments  
7 back that hopefully help make the permit more  
8 implementable.

9 Q. So it's subject to review by a  
10 number of people knowledgeable about these  
11 issues within the city, correct?

12 A. Correct.

13 Q. If you turn to Page 4 of 6, the  
14 second to last bullet.

15 A. Yes.

16 Q. It says: There are no PCB design  
17 loadings associated with the NLT treatment  
18 system design. NLT was constructed solely for  
19 phosphorus removal and compliance with the DO  
20 TMDL requirements. While additional PCB  
21 removal may be achieved through this system, it  
22 is not verified that PCB removal was not a  
23 design consideration.

24 Is that what the city said?

25 A. Yes.

1 LARS HENDRON

2 Q. And then it goes on to say: Rather  
3 than being required to operate NLT year-round  
4 to control PCBs beginning in 2026, the city  
5 intends to pilot or prepare to pilot NLT to  
6 determine the efficacy of PCB removal during  
7 this permit term, 2016 to -- excuse me -- 2021.

8 Is that correct?

9 A. That is what it says.

10 Q. Am I correct that Spokane County has  
11 a next-level treatment facility, correct?

12 A. Of a sort, yes.

13 Q. Okay. Am I correct that they  
14 operate their filters year-round to further  
15 remove TSS and BDD [sic], but not PCBs -- BOD?  
16 Excuse me.

17 A. I'm not certain.

18 Q. So I'm going to show you what  
19 appears to be one chapter of the Spokane County  
20 treatment plan.

21 (WHEREUPON, Hendron Deposition  
22 Exhibit 42: Chapter from Spokane Country  
23 treatment plan was marked for  
24 identification.)

25 Q. Dated December 17, 2007, this is

1 LARS HENDRON

2 Q. And it says: The City of Spokane is  
3 required by its NPDES permit, WA 002447-3, to  
4 install next-level treatment at the wastewater  
5 treatment facility, correct?

6 A. Yes.

7 Q. Implementation is required by March  
8 1, 2021 to comply with the Washington State  
9 Department of Ecology's Dissolve Oxygen Total  
10 Maximum Daily Load regarding nutrients.

11 Is that what it says?

12 A. Yes.

13 Q. Am I correct that it is not required  
14 with respect to any discharges of PCBs,  
15 correct?

16 A. Correct.

17 Q. And then part of your response to  
18 number 11 was: The primary purpose of these --  
19 the last sentence: The primary purpose of  
20 these tertiary treatment upgrades is to achieve  
21 total phosphorus removal to 18 micrograms per  
22 liter or less during the critical season of  
23 March 1 through 31 to comply with the  
24 Department of Ecology's Dissolved Oxygen Total  
25 Maximum Daily Load; is that correct?

1 LARS HENDRON

2 A. Yes.

3 Q. And that's accurate; is that  
4 correct?

5 A. That is accurate.

6 (WHEREUPON, Hendron Deposition  
7 Exhibit 44: NPDES issued to Spokane from  
8 Ecology issued June 16th, 2011 was marked  
9 for identification.)

10 BY MR. GOUTMAN:

11 Q. You've been placed before you  
12 Exhibit 44, which is the NDES -- I'm sorry --  
13 NPDES issued to Spokane from Ecology issued  
14 June 16th, 2011, effective date, July 1, 2011;  
15 is that correct?

16 A. Yes.

17 Q. And that sets forth, beginning on  
18 Page 8 of 7 [sic], certain effluent  
19 limitations, correct?

20 A. I'm sorry. Section S-8 or Page --

21 Q. Page -- I'm sorry -- 8 of 67, upper  
22 right corner.

23 A. Yes. All right.

24 Q. So this is 2011, right?

25 A. Correct.

1 LARS HENDRON

2 Q. And the permit says that you had to  
3 install, essentially, the next-level treatment  
4 for full phosphorus removal by March 1, 2018,  
5 correct?

6 A. At this time, yes.

7 Q. And you didn't meet that deadline?

8 A. We got an extension of that deadline  
9 to --

10 Q. When -- you got an extension about  
11 six or seven years later, right?

12 A. I think the extension was granted  
13 about two or three -- two or three years ago,  
14 in the neighborhood of 2017.

15 Q. We'll get to that.

16 In any event, that was a deadline  
17 you didn't meet, correct?

18 A. That was a deadline we modified.

19 Q. You didn't meet the March 1, 2017  
20 deadline that was outlined in this 2011 permit,  
21 did you?

22 A. Correct. That was a construction  
23 deadline, which we're doing the project  
24 differently.

25 Q. And then after the construction is

1 LARS HENDRON

2 Q. And then it says: The City of  
3 Spokane has constructed a total of six CSO  
4 controlled facilities, and so forth, and  
5 eliminated various CSO outfalls, correct?

6 A. Yes.

7 Q. And, again, this is designed to  
8 comply with your NS- -- your permit, correct?

9 A. Correct.

10 Q. I'm trying to shorten this. Okay.  
11 June 30th. So going back to the  
12 questions we were asking about that 2018  
13 deadline, we'll mark this as the next exhibit.

14 (WHEREUPON, Hendron Deposition  
15 Exhibit 46: Administrative Order was  
16 marked for identification.)

17 Q. Exhibit 46 is correspondence from --  
18 and an order from the Department of Ecology  
19 dated June 30, 2017; is that correct?

20 A. Yes.

21 Q. And it issued an Administrative  
22 Order, which they are enclosing, correct?

23 A. Yes.

24 Q. And it mentions that you had a March  
25 1, 2018 deadline to submit verification that



1 LARS HENDRON

2 the NLT had been installed. I'm just  
3 paraphrasing.

4 A. Correct.

5 Q. And it says, quote: The City of  
6 Spokane staff had told us the above dates when  
7 likely to be met.

8 Correct?

9 A. Correct.

10 Q. So does this refresh your  
11 recollection as to when you told the Department  
12 of Ecology that you couldn't meet the 2018  
13 deadline?

14 A. Yes, in writing, although we had  
15 been talking with them about it earlier.

16 Q. It would have been about a year  
17 before the deadline, correct?

18 A. Yes.

19 Q. Less than a year, right?

20 A. Correct.

21 Q. I'd like to do something that it's  
22 just designed to save time and paper, okay, and  
23 that is -- I'll set up the foundation with you,  
24 sir. You have -- you publish, on a yearly  
25 basis, a summary of the CSO overflow events,

1 LARS HENDRON

2 appears, in your reviewing that, whether that  
3 is what this exhibit represents as I'm  
4 characterizing it. Okay? And I'm doing this  
5 to save time.

6 A. I understand.

7 (Witness examining document.)

8 Q. While you're doing that, I will note  
9 that the -- strike that.

10 A. The document appears as you  
11 represented it.

12 Q. Okay. So it's not -- so we're  
13 clear, it's not necessary for me to go  
14 tediously through each of those reports and get  
15 you to say, yes, that's what the data is in the  
16 reports; that this exhibit reflects that data  
17 that was produced by the City of Spokane?

18 A. It seems to, and, yes.

19 Q. Thank you.

20 So why -- am I correct that -- if  
21 you turn to the second to last page and the  
22 last page.

23 A. Yes.

24 Q. It summarizes discharges from 2003  
25 to 2017; is that correct; the CSO events? I'm

1 LARS HENDRON

2 sorry.

3 A. Yes.

4 Q. And volume, correct?

5 A. This particular one talks about  
6 number of CSO events and inches of  
7 precipitation.

8 Q. And the next --

9 A. And the volume --

10 Q. The next page --

11 A. -- volume is on the next page.

12 Q. Okay. And so we're clear, the  
13 events -- overflow events as recently as 2017  
14 were 144, correct?

15 A. Yes.

16 Q. And so forth.

17 And going back in time, they were as  
18 high as 397, which was in 2006?

19 A. Yes.

20 Q. And the volume -- it's the next  
21 page, the volume in millions of gallons, as  
22 recently as 2017, was 71 million gallons of  
23 overflow; is that correct?

24 A. Yes.

25 Q. And going back in time, it was as

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2 high as 116 million gallons in 2006, correct?

3 A. Yes.

4 Q. And am I correct that in 2017, if  
5 you turn to the third to last page -- go the  
6 other way, there were a number of CSO outfalls  
7 that violated the one overflow per year permit  
8 requirement, correct?

9 A. I'm looking at that. It would be  
10 the fourth column over?

11 Q. Yes.

12 A. Yes.

13 Q. In fact, 15 of them, correct, 15 of  
14 the CSO outfalls? I'm counting right?

15 A. I'll couch my answer slightly. It  
16 appears -- it looks like 15 is right, however,  
17 with a 20-year averaging period, a tank is  
18 allowed to go off more than once or to overflow  
19 more than once in a given year.

20 Q. Okay. But you wouldn't happen to  
21 know, for example, with respect to -- let's  
22 take a look at Number 24.

23 A. Yes.

24 Q. 24-A, it's 27, 24-B, for a total of  
25 28, can we safely assume that 24 violated the

1 LARS HENDRON

2 ten-year average?

3 A. It overflowed, yes.

4 Q. In 2017?

5 A. Correct.

6 Q. So just so we're clear, then, you  
7 would agree with me that as of 2017, the city  
8 was in violation of its NPDES permit  
9 requirements of one outfall per year?

10 A. I believe that in 2017, the city  
11 negotiated an extension of the requirement to  
12 have all the tanks done by 2017.

13 So that those few remaining tanks,  
14 what you're seeing here as still overflowing,  
15 would be completed very shortly after.

16 Q. Maybe I wasn't clear.

17 Would you agree with me that your  
18 NPDES permit allows, again, on a rolling  
19 10-year average --

20 A. Yes.

21 Q. -- only one overflow per outfall per  
22 year, correct?

23 A. Once the tank -- once that basin is  
24 controlled and has its tank in place, I believe  
25 that's when the counting starts.

1 LARS HENDRON

2 Q. Am I correct that the Department of  
3 Ecology had promulgated a PCB water level  
4 criterion of 170 ppq way back when, correct?

5 A. That's the number that I'm first  
6 familiar with, correct.

7 Q. Okay. And then, as I understand it,  
8 in November of 2016, the EPA disapproved the  
9 170 ppq standard and replaced with a 7 ppq  
10 standard; is that correct?

11 A. I believe that's also correct.

12 Q. And you're also aware that recently,  
13 this month, the EPA has reversed that, correct?

14 A. I did hear about that.

15 (WHEREUPON, Hendron Deposition  
16 Exhibit 48: Letter dated May 10, 2019 was  
17 marked for identification.)

18 MR. GOUTMAN: Is that -- excuse me,  
19 Mr. Videographer, is that stack of  
20 documents blocking the view of the witness?

21 THE VIDEOGRAPHER: No.

22 MR. GOUTMAN: No, I didn't mean -- I  
23 was just asking.

24 Q. Okay. We have placed in front of  
25 you a letter to Ms. Bellon, B-e-l-l-o-n, of

1 LARS HENDRON

2 reconsidered, along with so many others that  
3 proceeded after the November election.

4 Did I read that correctly?

5 A. Yes.

6 Q. As mayor of the City of Spokane, it  
7 is my responsibility to protect our citizens,  
8 our economy and our river. We are doing that  
9 today. Unfortunately, the new EPA water  
10 quality standards threaten all of those values.

11 Is that what the City of Spokane  
12 wrote to EPA headquarters in Washington?

13 A. Yes, it is.

14 Q. Just skipping a paragraph:  
15 Consistently over the past several years, the  
16 city has supported Ecology's process to update  
17 the water quality standards for protecting  
18 human health (fish consumption rates) --

19 (The Court Reporter requested  
20 clarification.)

21 Q. Parens, fish consumption rates,  
22 close parens, as found in Chapter 173-101A of  
23 the Washington Administrative Code.

24 And it goes on to describe what  
25 Ecology did, correct?

1 LARS HENDRON

2 A. It appears to do that, yes.

3 Q. Yeah. And it says: We applauded  
4 DOE's efforts in developing criteria for PCBs,  
5 arsinic and methyl mercury that used the  
6 scientific standards, common sense, and  
7 conditions within Washington state.

8 Correct?

9 A. Yes.

10 Q. And that was the position of the  
11 City of Spokane, correct?

12 A. Yes, as expressed here.

13 Q. Yep. And then it goes on: Instead  
14 of supporting this collaborative process, the  
15 EPA turned Ecology's thoughtful and  
16 science-based rule on its head, leaving Ecology  
17 with a nearly impossible compliance workload,  
18 municipal discharges with unachievable and  
19 immeasurable standards, and the public with a  
20 tremendous impending financial drain on the  
21 economy without a reasonable expectation of an  
22 increased health benefit.

23 That's what it says?

24 A. Yes.

25 Q. Can we take that to mean that he



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2 does not believe that the 7 ppq will result in  
3 an increased health benefit, he meaning the  
4 city?

5 A. This letter, I presume, points  
6 toward the HHC, the Human Health Criteria, and  
7 that going as far down as 7 would not have as  
8 much benefit as one would hope.

9 Q. It says: Without reasonable  
10 expectation of an increased health benefit.

11 Is that what it says?

12 A. Yes. That would not -- yes.

13 Q. And then it continues: We are  
14 particularly concerned about the numerical  
15 limits of PCBs in the EPA rule. The standard  
16 at 7 ppq is unachievable with any current or  
17 anticipated technology. There aren't tests  
18 that can effectively measure PCBs at that  
19 level, and there is no evidence that the  
20 standard will provide an increased health  
21 benefit for citizens.

22 That's what the City of Spokane said  
23 to the EPA, correct?

24 A. Yes.

25 Q. The city has strongly supported

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2 for identification.

3 Q. I've handed you Exhibit 52, which is  
4 the 2016 Comprehensive Plan prepared by the  
5 task force; is that correct?

6 A. Yes.

7 Q. It was prepared by LimnoTech on  
8 behalf of the task force?

9 A. That's correct.

10 Q. And the city is a participant in  
11 that task force; is that correct?

12 A. Yes.

13 Q. If you turn to Page 10 --

14 A. All right.

15 Q. -- four lines from the bottom --  
16 five lines, it says: Average concentrations at  
17 all stations show compliance with the current  
18 Washington state water quality standard of 170  
19 picograms per liter, which is parts per  
20 quadrillion, ppq, right?

21 A. Correct.

22 Q. So as of 2016, the task force is  
23 saying that the PBC concentrations in the  
24 Spokane River comply with the EPA 170 ppq  
25 standard, correct?

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2 MR. LAND: Objection, misleading.

3 You can answer.

4 THE WITNESS: It indicates that it  
5 complies with the former Washington state  
6 standard of 170 or maybe -- actually, not  
7 former at that time.

8 BY MR. GOUTMAN:

9 Q. The present 170 -- let me just  
10 rephrase it.

11 It is saying that the average levels  
12 are less than 170 ppq?

13 A. Yes.

14 (WHEREUPON, Hendron Deposition  
15 Exhibit 53: Draft publication from the  
16 Spokane River Regional Toxics Task Force  
17 was marked for identification.)

18 Q. I've handed you a draft publication  
19 of the task force through its engineer  
20 LimnoTech titled -- it's dated February 20,  
21 2019, so just a couple months ago?

22 A. Yes.

23 Q. And it's a technical -- 2018  
24 technical activities report?

25 A. Yes.

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2 problem made those results invalid.

3 Q. So once again in -- as of February  
4 20, 2019, the Spokane River PCBs concentrations  
5 are less than 170 ppq, correct?

6 A. Based on these cites, yes.

7 Q. Are you aware of any test data that  
8 would suggest that the average concentrations  
9 are greater than 170?

10 A. No.

11 Q. Am I correct, sir, that in reaching  
12 its original determination, and Ecology  
13 reaching its original determination, that  
14 the -- in promulgating the 177 ppq standard, it  
15 determined in its judgment that PCBs levels at  
16 or below those concentrations were safe?

17 A. I am -- I would say that they put  
18 that number out as achieving the Human Health  
19 Criteria. I don't know that they would ever  
20 say safe.

21 Q. Well, is it the city's position that  
22 the Department of Ecology promulgates water  
23 standards that it believes are unsafe, or cause  
24 an unreasonable risk of harm to humans and the  
25 environment?

1 LARS HENDRON

2 Q. What it says: There's no evidence  
3 that the 7 ppq standard will provide an  
4 increased health benefit for citizens.

5 Correct?

6 A. Correct.

7 Q. And, certainly, it's not the City of  
8 Spokane's position that Mayor Condon and the  
9 city, in writing to the EPA, requesting the  
10 withdrawal of the 7 ppq standard and the  
11 reinstitution of the 170 ppq standard, that  
12 that would result in an unsafe river, correct?

13 A. Again, I'm struggling with the word  
14 "safe." The words that he used were that  
15 lowering the standard to 7 would not result in  
16 an increased health benefit.

17 Q. Well, let me ask it this way, sir:  
18 Would the City of Spokane advocate a PCB water  
19 level that it believed was unsafe for the  
20 citizens?

21 A. No.

22 MR. GOUTMAN: So is it your position  
23 that the next witness will discuss nuisance  
24 issues in activities on the river?

25 MR. LAND: You're talking about the

1 LARS HENDRON

2 and heat, correct?

3 A. That sounds like what I've heard,  
4 yes.

5 Q. And am I correct that there are  
6 byproduct PCBs in the Spokane River?

7 A. I believe that is true.

8 Q. With respect to intentionally  
9 manufactured PCBs, would you agree with me that  
10 they were an industrial product sold in bulk to  
11 manufacturers who used them to make other  
12 products?

13 MR. LAND: Objection, calls for  
14 speculation. You may answer.

15 THE WITNESS: I believe that is  
16 true.

17 BY MR. GOUTMAN:

18 Q. And would you agree with me that  
19 those manufacturers used PCBs because PCBs  
20 possessed a number of properties that they  
21 found desirable, such as non-flammability?

22 MR. LAND: I'm going to object. I  
23 believe this is beyond the scope of this  
24 deposition. I think there's another topic  
25 that that addresses, but let me look

1 LARS HENDRON

2 hydroseeding as part of the surface  
3 restoration.

4 Q. Hydroseed was used in the Spokane  
5 River restoration project, correct?

6 A. In which project was that?

7 Q. It says, the subject, hydroseed use  
8 in river restoration project?

9 A. Yes. That's a very vague title, so  
10 I'm not sure which project that was, but, yes,  
11 hydroseed appears to have been used.

12 Q. Okay. And if you turn -- flip the  
13 page, it refers to an attached report. I don't  
14 have the report, but PCBs detected in the  
15 amount of 2,509 micrograms per kilogram, which  
16 is parts per billion, correct?

17 A. Yes.

18 Q. Did I already ask you, did --  
19 byproduct PCBs are also found in deicers; is  
20 that correct?

21 A. I have been told that, yes.

22 Q. And these are all products that the  
23 city uses or that its contractors use, correct?

24 A. Yes.

25 Q. So the city's activities contribute

1 LARS HENDRON

2 to the concentrations of byproduct PCBs that  
3 are found in the Spokane River, correct?

4 A. It seems they could.

5 Q. Am I correct that the city passed an  
6 ordinance that required selection of products  
7 that did not contain byproduct PCBs as long as  
8 they weren't significantly more expensive?

9 A. Yes.

10 Q. Can you describe for me the  
11 enforcement of that -- is it an ordinance?  
12 What would you call it?

13 A. I believe it is an ordinance.

14 MR. LAND: I'm going to object. I  
15 believe this is beyond the scope of this  
16 notice, as well. I believe the ordinance  
17 will be discussed by the next witness.

18 MR. GOUTMAN: Okay. With that  
19 representation, I'll move on.

20 (WHEREUPON, Hendron Deposition  
21 Exhibit 57: PowerPoint titled The Search  
22 for Inadvertently Produced PCBs was marked  
23 for identification.)

24 BY MR. GOUTMAN:

25 Q. Let's go to -- I've handed you



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2 A. In the solid stream, yes.

3 Q. What do you mean in the solids?

4 A. In the material that they take out  
5 of the water, not in the water leaving the  
6 plant.

7 Q. And that's not what it says. It  
8 says that because of solid removal, it is --

9 A. I understand.

10 Q. -- it is the most abundant congener,  
11 correct?

12 A. Yes. I understand. I'm sorry.

13 Q. Pigments are a major source of PCBs  
14 in this system, correct?

15 A. Yes.

16 Q. That's the byproduct PCBs?

17 A. Yes.

18 Q. Reducing legacy PCBs will not fix  
19 the problem; is that what it says?

20 A. That is what it says.

21 Q. So is there any reason that the  
22 city's aware of why pigments -- byproduct PCBs  
23 in the form of pigments would be a major source  
24 of PCBs in the Spokane wastewater system but  
25 not the Riverside system, is there any reason

1 LARS HENDRON

2 that you can think of?

3 MR. LAND: Objection,  
4 mischaracterization of what this document  
5 says.

6 BY MR. GOUTMAN:

7 Q. You can answer.

8 A. I anticipate that if the county  
9 plant sees PCB 11, that the Spokane plant also  
10 sees PCB 11.

11 Q. And is there any -- my question was  
12 different, though.

13 A. Please restate.

14 Q. Is there any reason why pigments  
15 would not be a major source of PCBs in the city  
16 system when it is a major source, according to  
17 Dr. Rodenburg, a major source of PCBs in the  
18 county system?

19 MR. LAND: I'll also object,  
20 misleading, misstates what this document is  
21 saying.

22 BY MR. GOUTMAN:

23 Q. Go ahead.

24 A. I have no reason to believe it  
25 wouldn't be, but I also have no evidence that

1 LARS HENDRON

2 it is.

3 (WHEREUPON, Hendron Deposition  
4 Exhibit 59: Transcript of webinar was  
5 marked for identification.)

6 MR. GOUTMAN: We've marked as -- I'm  
7 sorry -- 59?

8 THE COURT REPORTER: Yes.

9 Q. 59 a transcript of a webinar  
10 Dr. Rodenburg gave, and we've discussed this  
11 with Dr. Rodenburg under oath previously. And  
12 I don't want you to go through all of this, but  
13 I just want to show you what Dr. Rodenburg said  
14 about Spokane.

15 A. Spokane. Okay.

16 Q. Page 52.

17 A. All right.

18 Q. And, again, Dr. Rodenburg has been  
19 doing testing of the Spokane County treatment  
20 plant, and she says, starting at line 13: And  
21 the one PCB congener that is now dominant in  
22 the effluent is PCB 11, which is the one that  
23 comes from pigments. And so this is a problem  
24 for the City of Spokane or the county of  
25 Spokane because they can go after Aroclor-type